

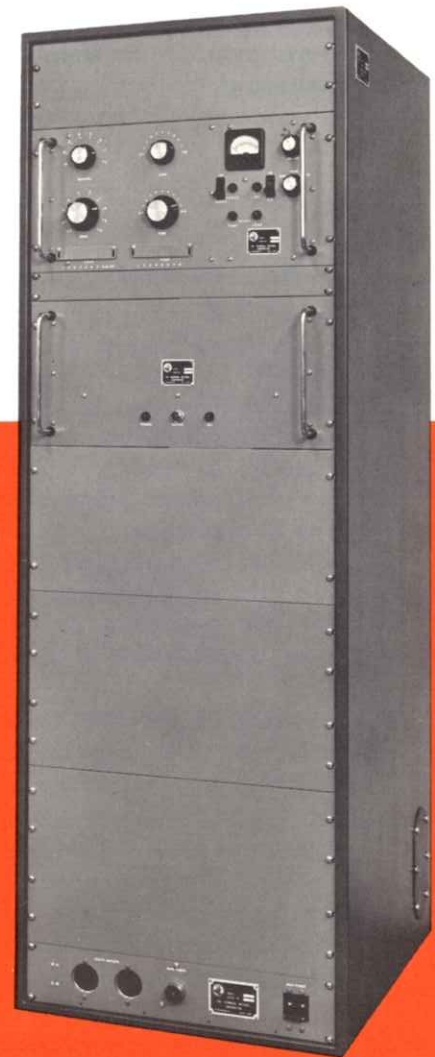
CHANNELIZED HIGH FREQUENCY TRANSMITTER, 1000 WATTS PEP

MTT-1K

The MTT-1K is a complete eight channel, 1000-watt transmitter that operates in the 1.6 to 12 MHz range with total remote control capability. Normally operating in the AM (A3), AME(A3H), and USB(A3A,A3J) modes, it is fully compatible with both existing AM equipment and sideband equipment in the newer, converted stations.

The transmitter drive is the MTT-100 which provides better than 50 watts RF excitation for the LPA-1K, a 1000 watt PEP linear power amplifier following the driver. As a system transmitter, the MTT-1K provides instant frequency change when any one of eight channels is selected. The DCS-1 telephone desk set, not shown in the accompanying photograph, enables full remote control of the transmitter including channel select, mode select, and carrier suppression. This optional feature of remote control automation is very useful when the transmitter is co-located with the transmitting antenna at some distance from the operator.

The MTT-1K may be equipped on special order with a step switch for reducing power output to a 150 watt PEP level. In addition, the transmitter may be housed in several types of equipment cabinets depending on the operating environment.



**Model MTT-1K with
Auxilliary Power Panel**

Revised 15 Aug 1971



THE TECHNICAL MATERIEL CORPORATION

AND SUBSIDIARIES

Printed in U.S.A.

TECHNICAL SPECIFICATIONS

FREQUENCY INFORMATION

Range

1.6 to 12 MHz

Stability

Maximum deviation 20 Hz, -30 to +50°C

Control

Crystal controlled oscillators

Presentation

Selector channel switch

OPERATING PARAMETERS

Modes

AM(A3); AME(A3H); USB(A3A,A3J)

Power Output

1000 Watts PEP

OPTIONAL: Intermediate power feature.

Output Impedance

50 ohms nominal, unbalanced

Number of Channels

Eight; Pre-tuned to operating frequencies

Carrier Suppression

A3H 6db below rated PEP

A3A 16db below rated PEP (+/-2db)

A3J Min 40db below rated USB PEP

Front Panel Selectable or Automated

Tuning

Bandswitching and tuning from front panel.

OPTIONAL: Automated amplifier channel selection with servo tuning.

ALDC

Automatic Load and Drive Control

Maintains output and limits distortion.

Metering

Front panel meters for monitoring output readings and critical circuits.

Safety Features

Overload relays and fuses protect against abnormal operating levels and interlocks protect personnel from high voltage.

Construction

Solid state up to the final output stage.

DISTORTION AND NOISE, AUDIO

Spurious and Harmonic Suppression

Minimum 40db below mean power

Hum and Noise

Minimum 40db below test modulation

Intermodulation

Minimum 35db below either tone of a standard two tone test at full rated PEP output power.

Audio

Input Level 0 dbm

Response 300-2400 Hz

Occupied Bandwidth 4200 Hz maximum

ENVIRONMENTAL AND INSTALLATION

Operating Conditions

-30 to +50°C; Up to 90% relative humidity

Primary Power

115 volts, 50/60 Hz, single phase

Approximately 1700 watts.

Size and Weight

17½" high X 19" deep X 21¼" wide

Approximately 110 lbs.

Cooling

Cooling by filtered forced air in linear.

MODEL DCS-2 Desk Set Remote

The purpose the desk control set serves is to provide means for selecting up to eight channels and any mode, remotely. This set may be used up to 200 feet distance from the transmitter and is used with the completely automated MTT-1K.

MODEL ATU-1K Antenna Tuner

The ATU-1K provides the necessary impedance matching into a 35-foot antenna and is usually slaved to the channel select.



THE TECHNICAL MATERIEL CORPORATION

700 FENIMORE ROAD • MAMARONECK, NEW YORK 10543

SPRINGFIELD, VIRGINIA • OTTAWA, CANADA • LUZERN, SWITZERLAND • TEMPE, ARIZONA

(914) 698-4800 • (613) 822-0244 • twx 710-566-1100 • telex 013-446